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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,428	12/14/2001	Scott Swix	BS01042	6351

7590 04/19/2006
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EXAMINER

JOHNSON, ALAN M

ART UNIT PAPER NUMBER

2623

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/017,428	Applicant(s) SWIX ET AL.	
	Examiner Alan M. Johnson	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to enable one of ordinary skill in the art how to make or use a demultiplexer that decodes the entire transport layer and a decoder that decodes the entire transport layer" as recited in claims 1 and 12.

The specification at page 25, lines 3-31 and figure 7 describe that the entire transport layer is retrieved off the network bus by network I/O (701), decrypted (702), demultiplexed (703) and decoded (704).

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First, the demultiplexer (703) appears to demultiplex the entire transport layer and produce plural signals or streams otherwise no signal or stream is demultiplexed. Secondly, the decoder (704) appears to either decode the entire transport layer or single stream. If the decoder decodes the entire transport stream, then it is not clear how the video display (607) can display an entire transport stream. If the decoder decodes a single stream, then the entire transport layer is not sent to the decoder and therefore this contradicts the claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 2, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakai (6,654,901).

Considering claim 1, Nakai discloses a digital residential entertainment system comprising:

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a media server (2, 11, 12 Fig. 3) tuning to a transport layer and transmitting the entire transport layer, rather than a single program stream, over a network bus (21 Fig. 3) and the front end receives the transport stream column 6 line 56-60 and the transport stream is a plurality of programs, column 7 lines 7-8);

a network input/output module (26 Fig. 3) receiving the transport layer off the network bus (21 Fig. 3);

a decryption module (descramble 131 Fig. 3) that decrypts the transport layer;

a demultiplexer (133 Fig. 3) that demultiplexes the transport layer;

a decoder (141 Fig. 3) that decodes the transport layer or a signal from the transport layer (column 7 line 58 – column 8 line 5).

As for claim 2, Nakai discloses the digital residential entertainment system comprising a digital-to-analog converter (143, 144 Fig. 3) that converts the digital transport layer to analog signals (column 7 line 66- column 8 line 5).

With respect to claim 11 Nakai discloses the network input/output module, the decryption module, the demultiplexer and the decoder comprise a computer-readable medium comprising computer-readable instructions, which when

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executed perform the functions of the network input/output module, the decryption module, the demultiplexer and decoder (22, 23, 24, 25 Fig. 3, all of the listed components are in communication with the Host computer section which controls all of the components of the system).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 4 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakai as applied to claim 1 above, and further in view of Hylton (5,708,961).

Dealing with claim 3, Nakai discloses all the claim limitations of claim 1 but fails to specifically teach a conditional access system that restricts access to media services offered via the transport layer to authorized customers.

However, in an analogous art, Hylton '961 discloses a conditional access system (207, 211 Fig. 5) that restricts access to media services offered via the transport layer to authorized customers (column 19 lines 1-10).

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It would have been obvious to one of ordinary skill in the art to modify Nakai's system to include a conditional access system that restricts access to media services offered via the transport layer to authorized customers, as taught by Hylton '961, for the benefit of restricting channel access to users who have not paid the fee's for premium channels.

With regard to claim 4, Nakai and Hylton '961 disclose the conditional access system that comprises a card reader and an access card (Hylton '961, column 19 lines 1-10).

As for claim 12, Nakai discloses a digital residential entertainment system comprising:

receiving and demodulation a plurality of transport layers, tuning to a specific transport layer identified by a decoder and sending the entire identified transport layer, rather than a single program stream, over a bus; a decryption module that decrypts the identified transport layer; a demultiplexer that demultiplexes the identified transport layer; and the decoder decoding the identified transport layer; (see rejection analysis of claim 1).

Nakai fails to disclose a tuner array.

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In an analogous art, Hylton '961 discloses a tuner array (11 Fig. 7).

It would have been obvious to one of ordinary skill in the art to modify Nakai's system to include a tuner array, as taught by Hylton '961, for the benefit of reducing burden on a single tuner by dividing the task of tuning to the entire transport layer among multiple tuners.

With respect to claim 13, Nakai and Hylton '961 disclose all the claim limitations of claim 12 and Hylton '961 in particular discloses a decoder as being a part of a thin client set top box (Hylton '961 129, 131 Fig. 4).

It would have been to one of ordinary skill in the art to modify the combined systems of Nakai and Hylton '961 to include decoder as being a part of a thin client set top box, as taught by Hylton '961, for the benefit of allowing the set top box to carry out the decoding functions of the system.

Considering claim 14, Nakai and Hylton '961 disclose a digital-to-analog converter (Nakai, 143,144 Fig. 3) that converts the identified transport layer to analog signals (Nakai, column 7 line 66 – column 8 line 5).

Dealing with claim 15, Nakai and Hylton '961 disclose a conditional access system (Hylton '961, 207, 211 Fig. 5) that restricts access to media services

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offered via the transport layer to authorized customers (Hylton '961, column 19 lines 1-10).

8. Claims 5-8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakai and Hylton '961 as applied to claims 3 and 12 above, and further in view of Rowe (US2005/0060759).

In regard to claim 5, Nakai and Hylton '961 disclose all the claim limitations of claim 3 but fail to specifically teach the conditional access system that comprises a secured network conditional access system.

However, in an analogous art, Rowe discloses the conditional access system that comprises a secured network conditional access system (paragraph 121 lines 1-10)

It would have been obvious to one of ordinary skill in the art to modify the combined systems of Nakai and Hylton '961 to include the conditional access system that comprises a secured network conditional access system, as taught by Rowe, for the benefit of ensuring secure data transmission and retrieval.

Considering claim 6, Nakai, Hylton '961 and Row meet all the claim limitations of claim 5 and Rowe in particular further discloses the secured

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network conditional access system compromises a secured Internet Protocol (IP) connection to an authentication service provider (paragraph 121 lines 1-10)

With respect to claim 7, Nakai, Hylton '961, and Rowe meet all the claim limitations of claim 6 and Rowe in particular further discloses the secured Internet Protocol (IP) connection is an IPsec connection (paragraph 121 lines 1-10).

As for claim 8, Nakai, Hylton '961 and Rowe meet all the claim limitations of claim 5 and Rowe in particular further discloses the secured network conditional access system that comprises a broadband connection to an authentication service provider (paragraph 121 lines 1-10).

Dealing with claim 16, Nakai and Hylton '961 disclose all the claim limitations of claim 12 but fail to specifically teach the identified transport layer as being an Ethernet transport layer.

However, in an analogous art, Rowe discloses the identified transport layer as being an Ethernet transport layer (paragraph 100 lines 15-20 and paragraph 107 lines 7-12).

It would have been obvious to one of ordinary skill in the art to modify the combined systems of Nakai and Hylton '961 to include the identified transport layer as being an Ethernet transport layer, as taught by Rowe, for the benefit of

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using a universal connection scheme which will allow greater connectivity and versatility with foreign networks and components respectively.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakai, Hylton '961 and Rowe as applied to claim 8 above, and further in view of Hylton (5,793,413).

Considering claim 9, Nakai, Hylton '961 and Rowe disclose all the claim limitations of claim 8 but fail to specifically teach the broadband connection being a private virtual circuit (PVC) connection.

However, in an analogous art, Hylton '413 discloses the broadband connection being a private virtual circuit (PVC) connection (column 15 line 66 – column 16 line 3).

It would have been obvious to one of ordinary skill in the art to modify the combined systems of Nakai, Hylton '961 and Rowe to include the broadband connection being a private virtual circuit (PVC) connection, as taught by Hylton '413, for the benefit of saving bandwidth associated with circuit establishment and tear down, in situations where certain virtual circuits must exist all of the time.

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10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakai as applied to claim 1 above, and further in view of D'Luna (US2002/0106018A1).

In regard to claim 10, Nakai discloses all the claim limitations of claim 1 but fails to specifically teach the decrypting, demultiplexing and decoding functions being integrated into a signal chip.

However, in an analogous art, D'Luna discloses the decrypting, demultiplexing and decoding functions being integrated into a signal chip (paragraph 33, paragraph 39 lines 1-3, paragraph 40 lines 1-3, and paragraph 42 lines 1-7).

It would have been obvious to one of ordinary skill in the art to modify Nakai's system to include the decrypting, demultiplexing and decoding functions being integrated into a signal chip, as taught by D'Luna, for the benefit of saving valuable real-estate on a computer chip as well as making a set top box more compact.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan M. Johnson whose telephone number is (571)272-7916. The examiner can normally be reached on 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher C. Grant can be reached on (571)272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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